



CITY OF DURHAM | NORTH CAROLINA

**Date:** August 7, 2012

**To:** Thomas J. Bonfield, City Manager  
**Through:** Keith Chadwell, Deputy City Manager  
**From:** Donald F. Greeley, Director, Water Management  
Jerry Morrone, Engineering Supervisor, Water Management

**Subject:** Southeast Pressure Zone Tank and Water System Improvements  
Professional Design Services Contract

### **Executive Summary**

The Department issued a Request for Qualifications (RFQ) for Professional Engineering Services for design, surveying, construction administration and construction observations services for the establishment of a new pressure zone in the southeast area of Durham's water distribution system. The new pressure zone is needed to maintain existing service levels and allow service for new development at higher ground elevations in the area. Generally the scope includes a new elevated storage tank and several pipeline improvements. The Department interviewed three of the six responders to the Request for Proposals. The engineering firm Hazen & Sawyer, PC, of Raleigh, NC, was selected and a scope of services has been negotiated in the amount of \$1,103,895.00.

### **Recommendation**

The Department of Water Management recommends that the City Council:

1. Authorize the City Manager to execute a contract with Hazen & Sawyer, PC, in an amount not to exceed \$1,103,895.00 for the Southeast Pressure Zone Tank and Water System Improvements;
2. Establish a contingency fund for the contract in an amount not to exceed \$111,105.00; and
3. Authorize the City Manager to negotiate change orders for the contract provided that the total project cost does not exceed \$1,215,000.00.

### **Background**

The Department of Water Management has recognized the need to maintain existing water pressures and service levels in the southeast area of the City's distribution system. As identified in the 2002 Water Distribution Study, a new pressure zone is needed to ensure the City's ability to accomplish these needs. Additionally the new pressure zone would allow for development to occur in areas of higher ground elevations. These areas of higher ground elevations could not be served with the existing system pressures. The City has preliminarily identified a 9.5 square mile area, essentially bordered by Miami Blvd., the US 70 corridor and the county line, as an area to be served with the new pressure zone. The current pressure in this area is at elevation 565' MSL (mean sea level). The new zone will be set at 615' MSL, providing approximately 20 psi increase in pressures.

The new pressure zone will be supplied via a new elevated storage tank. In order to properly circulate water in this area to meet water quality standards, and avoid numerous

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dead-end lines, several key pipeline segments, along Page Rd., Miami Blvd. and NC 55, must also be installed. The project will involve recommending the best location of separation valves between the existing and new zone, as well as system operations during periods of tank maintenance.

### Issues and Analysis

The following six firms responded to the RFQ:

Hazen & Sawyer, PC  
Highfill Infrastructure Engineering, PC  
Coulter Jewell Thames  
McKim and Creed, PA  
AECOM  
Wooten

Three firms, Hazen & Sawyer, Highfill Infrastructure and McKim and Creed, were short-listed to orally present their proposals to the 5-person selection committee. The committee was comprised of staff from the department and the Equal Opportunity/Equity Assurance Department. Based on their presentation, proposal and experience, the committee selected the firm of Hazen & Sawyer, PC for the project.

### Alternatives

Alternative #1 - Do not award the design to outside consultant, and prepare all design plans in-house. Department staff does not have the resources, expertise or availability to survey and prepare design plans for a project of this magnitude and type.

### Financial Impact

Funding for this project is from the Southeast Distribution System Expansion Project which is part of the City's Capital Improvement Program. The funds are currently available in projects accounts: 4100P760-731004-P0B88, 4100P762-731004-P0B88 and in the contingency fund 4100P762-731900-P0B88.

### SDBE Summary

The Equal Opportunity/Equity Assurance Department reviewed the proposal submitted by Hazen & Sawyer, P. C. of Raleigh, North Carolina to determine compliance with the Ordinance to Promote Equal Business Opportunities in City Contracting. The goals for this project are MSDBE 2% and WSDBE 2%. It was determined that Hazen and Sawyer, P. C. is in compliance with the Ordinance to Promote Equal Business Opportunities in City Contracting.

Hazen & Sawyer, P. C. will subcontract to the following certified firms:

Firm	ID	City/State	Amount	% of Contract
Bree and Associates	MSDBE	Durham, NC	\$ 22,078.00	2%
CH Engineering, PLLC	WSDBE	Raleigh, NC	\$33,117.00	3%
A1 Consulting Group	SDBE	Morrisville, NC	\$ 22,078.00	2%

### Workforce Statistics

Workforce statistics for Hazen and Sawyer, P. C. are as follows:

Total Workforce	152	
Total Females	31	(20%)
Total Males	121	(80%)

Black Males	8	(5%)
White Males	104	(69%)
Other Males	9	(6%)
Black Females	3	(2%)
White Females	26	(17%)
Other Females	2	(1%)

#### Attachments

Boundary Map  
Contract